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| EXAMINER | |
|---|---|
| FOX, JAMAL A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2664 | |

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/910,790 | MOR, GAL | |
| | Examiner | Art Unit | |
| | Jamal A. Fox | 2664 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *24 July 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10-13 and 23-26* is/are allowed.

6)☒ Claim(s) *1,3-9,14 and 16-22* is/are rejected.

7)☒ Claim(s) *2 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/7/01 & 8/27/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *IDS: 3/23/05*.

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it is not within the range of 50 to 150 words. Correction is required. See MPEP § 608.01(b).

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-5, 7, 8, 14, 16, and 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Arecco et al. (U.S. Patent Application Pub. No. 2002/0003639).

Referring to claim 1, Arecco et al. discloses a communication device for interconnection of first (Fig. 23, Network 1 and respective portions of the spec.) and second networks (Fig. 23, Network 2 and respective portions of the spec.), of which at least the first network (Fig. 23, Network 1 and respective portions of the spec.) is a ring network (ring network, [pg. 1, 0001, 0002, 0003 and 0005]) over which traffic is transmitted in both clockwise (clockwise, pg. 6 [0127]) and counterclockwise (counterclockwise, pg. 6 [0127]) directions, the device comprising: first (Fig. 23 ref. sign D and respective portions of the spec.) and second (Fig. 23 ref. sign E and respective portions of the spec.) interconnect modules, each such module adapted to receive outgoing data traffic on the first network and to convey the outgoing data traffic to the second network (see Fig. 23 ref. signs $S_1$ and $S_2$), and to receive incoming data traffic from the second network and to convey the incoming data traffic to the first network (see Fig. 23 ref. signs $S_1$ and $S_2$),

the first and second interconnect modules being in mutual communication (exchange, pg. 17 [0319]) so that while both of the modules are operational, the first module is configured to receive from the first network only the outgoing data traffic transmitted in the clockwise direction, while the second module is configured to receive from the first network only the outgoing data traffic transmitted in the counterclockwise direction (inherent, see the signal arrows, Fig. 23), and so that when a fault (failures occurs in node D, pg. 16 [0298]) occurs in one of the first and second modules, the other module receives a fault indication (Fig. 23 ref. signs $S_1$ and pg. 16 [0300]), causing the other module (Fig. 23 ref. sign E and respective portions of the spec.) to

receive substantially all of the outgoing data traffic and to convey the outgoing data traffic to the second network (Fig. 23, Network 2 and respective portions of the spec.).

Referring to claim 3, Arecco et al. discloses a device according to claim 1, wherein both of the first and second modules are configured to transmit the incoming data traffic over the first network in both the clockwise (clockwise, pg. 6 [0127]) and counterclockwise (counterclockwise, pg. 6 [0127]) directions while both of the modules are operational, as well as when the fault occurs.

Referring to claim 4, Arecco et al. discloses a device according to claim 1, wherein the fault occurs in one of the modules, the other module is adapted to receive the outgoing data traffic transmitted in the both clockwise (clockwise, pg. 6 [0127]) and the counterclockwise (counterclockwise, pg. 6 [0127]) directions.

Referring to claim 5, Arecco et al. discloses a device according to claim 4, wherein when the fault occurs in one of the modules, the other module is adapted to wrap the traffic between the clockwise (clockwise, pg. 6 [0127]) and counterclockwise (counterclockwise, pg. 6 [0127]) directions, away from the module in which the fault occurred.

Referring to claim 7, Arecco et al. discloses a device according to claim 1, wherein the first network comprises an access ring (Fig. 23, Network 1 and respective portions of the spec.) network, while the second (Fig. 23, Network 2 and respective portions of the spec.) network comprises a trunk network (single optical channel, pg. 2, [0011] a trunk network is a single transmission channel between two points that are nodes), and wherein first and second modules (Fig. 23 ref. signs D & E and respective

portions of the spec.) are configured to serve as a gateway node between the access ring network and the trunk network.

Referring to claim 8, Arecco et al. discloses a device according to claim 1, wherein the first and second networks (Fig. 23, Networks 1 & 2 and respective portions of the spec.) respectively comprise first and second ring networks (ring network, [pg. 1, 0001, 0002, 0003 and 0005]) , and wherein the interconnect modules (Fig. 23 ref. signs D & E and respective portions of the spec.) are configured to convey and receive the traffic to and from the second network in a manner substantially similar to that in which the modules convey and receive the traffic to and from the first network.

Referring to claim 14, Arecco et al. discloses a method for communication between first (Fig. 23, Network 1 and respective portions of the spec.) and second (Fig. 23, Network 2 and respective portions of the spec.) networks, of which at least the first (Fig. 23, Network 1 and respective portions of the spec.) network is a ring network (ring network, [pg. 1, 0001, 0002, 0003 and 0005]) over which traffic is transmitted in both clockwise (clockwise, pg. 6 [0127]) and counterclockwise (counterclockwise, pg. 6 [0127]) directions, the method comprising:

coupling the first (Fig. 23, Network 1 and respective portions of the spec.) and second (Fig. 23, Network 2 and respective portions of the spec.) networks together via first and second interconnect modules, such that while both of the modules are operational, the first module receives outgoing traffic from the first (Fig. 23, Network 1 and respective portions of the spec.) network for transmission over the second (Fig. 23, Network 2 and respective portions of the spec.) network only in the clockwise direction

(inherent, see the signal arrows, Fig. 23) on the first network, while the second module receives outgoing traffic from the first (Fig. 23, Network 1 and respective portions of the spec.) network for transmission over the second (Fig. 23, Network 2 and respective portions of the spec.) network only in the counterclockwise direction on the first network (inherent, see the signal arrows, Fig. 23); and

upon occurrence of a fault (failures occurs in node D, pg. 16 [0298]) in one of the first and second modules, reconfiguring (reconfigure, pg. 1 [0008 and 0009]) the other modules so as to receive substantially all of the outgoing traffic for transmission over the second network.

Referring to claim 16, Arecco et al. discloses the method according to claim 14, wherein coupling the first and second networks (Fig. 23, Networks 1 & 2 and respective portions of the spec.) comprises configuring both of the first and second modules to transmit the incoming traffic over the first network in both the clockwise (clockwise, pg. 6 [0127]) and counterclockwise (counterclockwise, pg. 6 [0127]) directions while both of the modules are operational, as well as upon occurrence of the fault.

Referring to claim 18, Arecco et al. discloses the method according to claim 14, wherein reconfiguring (reconfigure, pg. 1 [0008 and 0009]) the other of the modules comprises reconfiguring the module to receive the outgoing traffic in both the clockwise (clockwise, pg. 6 [0127]) and counterclockwise (counterclockwise, pg. 6 [0127]) directions on the first network.

Referring to claim 19, Arecco et al. discloses a method according to claim 18, wherein reconfiguring the other of the modules comprises wrapping the traffic between

the clockwise (clockwise, pg. 6 [0127]) and counterclockwise (counterclockwise, pg. 6 [0127]) directions away from the module in which the fault occurred.

Referring to claim 20, Arecco et al. discloses a method according to claim 14, wherein the first network comprises an access ring (Fig. 23, Network 1 and respective portions of the spec.) network, while the second (Fig. 23, Network 2 and respective portions of the spec.) network comprises a trunk network (single optical channel, pg. 2, [0011] a trunk network is a single transmission channel between two points that are nodes), and wherein coupling the first and second network comprises coupling a gateway node (Fig. 23 ref. signs D & E and respective portions of the spec.) between the access ring network and the trunk network.

Referring to claim 21, Arecco et al. discloses a method according to claim 14, wherein the first and second networks respectively comprise first and second ring network (Fig. 23, Networks 1 & 2 and respective portions of the spec.), and wherein coupling the first and second network comprises configuring the modules to convey and receive the traffic to and from the second network in a manner substantially similar to that in which the modules convey and receive the traffic to and from the first network.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Batchellor et al. (U.S. Patent No. 6,731,597).

Referring to claim 1, Batchellor et al. discloses a communication device for interconnection of first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) and second (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) networks, of which at least the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 2 and respective portions of the spec.) network is a ring network (ring network, col. 3 lines 16-29) over which traffic is transmitted in both clockwise and counterclockwise directions (directions, col. 3 lines 42-55), the device comprising: first and second interconnect modules, each such module adapted to receive outgoing data traffic on the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) network and to convey the outgoing data traffic to the second network, and to receive incoming data traffic from the second network and to convey the incoming data traffic to the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) network,

the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 7 and respective portions of the spec.) and second (Figs. 1A, 2, 7, 10A, 10C, ref. sign 8 and respective portions of the spec.) interconnect modules being in mutual communication so that while both of the modules are operational, the first module is configured to receive from the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) network only the outgoing data traffic transmitted in the clockwise direction, while the second module is configured to receive from the first network only the outgoing data traffic transmitted in the counterclockwise direction, and so that when a fault (fault, col. 3 lines 30-41 and col. 5 lines 10-17 and col. 7 lines 1-7) occurs in one of the first and second modules, the other module receives a fault indication (see the detectors, Fig. 3A, 4A, 5, 6, 8, 9 and respective portions of the spec.) causing the other module to receive substantially all of the outgoing data traffic and to convey the outgoing data traffic to the second network.

Referring to claim 14, Batchellor et al. discloses a method for communication between first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) and second (Figs. 1A, 2, 7, 10A, 10C, ref. sign 2 and respective portions of the spec.) networks, of which at least the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) network is a ring network (ring network, col. 3 lines 16-29) over which traffic is transmitted in both clockwise and counterclockwise directions (directions, col. 3 lines 42-55), the method comprising:

coupling the first and second networks together via first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 7 and respective portions of the spec.) and second (Figs. 1A, 2, 7, 10A, 10C, ref. sign 8 and respective portions of the spec.) interconnect modules, such that while

both of the modules are operational, the first module receives outgoing traffic from the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) network for transmission over the second (Figs. 1A, 2, 7, 10A, 10C, ref. sign 2 and respective portions of the spec.) network only in the clockwise direction on the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) network, while the second module receives outgoing traffic from the first network for transmission over the second (Figs. 1A, 2, 7, 10A, 10C, ref. sign 2 and respective portions of the spec.) network only in the counterclockwise direction on the first (Figs. 1A, 2, 7, 10A, 10C, ref. sign 1 and respective portions of the spec.) network; and

upon occurrence of a fault (fault, col. 3 lines 30-41 and col. 5 lines 10-17 and col. 7 lines 1-7) in one of the first and second modules, reconfiguring (reconfigure, col. 7 lines 1-7) the other modules so as to receive substantially all of the outgoing traffic for transmission over the second network.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 6, 9, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arecco et al. in view of Behzadi.

Referring to claim 6, Arecco et al. discloses a device according to claim 1, but fails to explicitly teach of each of the first and second modules being configured with Media Access Control (MAC) addresses assigned to both the first and second modules, and is controlled so that while both of the modules are operational, each of the modules receives only the outgoing data traffic destined to its own MAC address, and so that when the fault occurs in one of the modules, the other module receives the outgoing data traffic destined to both of the MAC addresses. However, Behzadi discloses a communication device for interconnection of first and second networks (see Figures 3 and 12 and respective portions of the spec.) of which at least the first network is a ring network over which traffic is transmitted in both clockwise and counterclockwise directions, the device comprising MAC addresses (MAC addresses, col. 11 lines 9-20) assigned to the interconnecting modules. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the MAC address of Behzadi to the invention of Arecco et al. in order for the reconfigurable optically coupled nodes to be able to communicate with each other as suggested by Arecco et al. pg. 4, [0037].

Referring to claim 9, Arecco et al. discloses a device according to claim 1, but does not explicitly teach of the second network not being a ring network. However, Behzadi discloses a communication device for interconnection of first and second networks (see Figures 3 and 12 and respective portions of the spec.) of which at least the first network is a ring network over which traffic is transmitted in both clockwise and counterclockwise directions with the second network is a logical arc network (col. 7 lines

5-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the second network not being a ring network of Behzadi to the invention of Arecco et al. in order to limit the number of hops that the data can travel to a node on the ring network as suggested by Behzadi (col. 7 lines 8-20).

Referring to claim 17, Arecco et al. discloses a method according to claim 14, but fails to explicitly teach of where coupling the first and second networks comprises assigning respective Media Access Control (MAC) addresses to the first and second modules and configuring each of the first and second modules with the MAC addresses of both of the modules, such that while both of the modules are operational, each of the modules receives only the outgoing traffic destined to its own MAC address, wherein reconfiguring the other of the modules comprises setting the other module to receive the outgoing traffic destined to both of the MAC addresses. However, Behzadi discloses a communication device for interconnection of first and second networks (see Figures 3 and 12 and respective portions of the spec.) of which at least the first network is a ring network over which traffic is transmitted in both clockwise and counterclockwise directions, the device comprising MAC addresses (MAC addresses, col. 11 lines 9-20) assigned to the interconnecting modules. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the MAC address of Behzadi to the invention of Arecco et al. in order for the reconfigurable optically coupled nodes to be able to communicate with each other as suggested by Arecco et al. pg. 4, [0037].

Referring to claim 22, Arecco et al. discloses a method according to claim 14, but fails to explicitly teach of the second network not being a ring network. However, Behzadi discloses a communication device for interconnection of first and second networks (see Figures 3 and 12 and respective portions of the spec.) of which at least the first network is a ring network over which traffic is transmitted in both clockwise and counterclockwise directions with the second network is a logical arc network (col. 7 lines 5-10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the second network not being a ring network of Behzadi to the invention of Arecco et al. in order to limit the number of hops that the data can travel to a node on the ring network as suggested by Behzadi (col. 7 lines 8-20).

***Allowable Subject Matter***

9. Claims 10-13 and 23-26 are allowed.

10. Claims 2 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

**or faxed to:**

(703) 305-3988, (for formal communications intended for entry)

**Or:**

(703) 305-3988 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. 22202, Sixth Floor (Receptionist).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (571) 272-3143. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Jamal A. Fox

WELLINGTON CHIN
ERVISORY PATENT EXAMINE